

### **REMARKS**

Reconsideration of the present application in view of the above amendments and following remarks is respectfully requested.

#### **Status of the Claims**

Claims 6-21 are presented. Claim 11 is amended for clarity. Support is found throughout the specification as originally filed. Claims 6-10 are cancelled without prejudice to pursuing claims of the same or similar scope in a continuation or divisional application, or during the course of further prosecution of the present application. Claims 1-5 were previously cancelled. New claims 17-21 are added. Support for claims 17-18 and 20-21 is found in the specification as originally filed, page 5, lines 21-23. Support for claim 19 is found in original claim 1, now cancelled, and throughout the specification as originally filed.

No new matter has been introduced.

#### **Summary of the Invention as Claimed**

As presently amended, claims 11-18 are directed to a process for producing a flattened coating comprising (a) introducing into a self-curing or radiation-curing coating system a liquid dimerdiol(meth)acrylate flattening agent in an amount effective to flat the coating system, the dimerdiol (meth)acrylate having a degree of esterification of at least 50%, (b) applying a coating of the flattened coating system to a substrate, and (c) curing the coating, wherein the cured coating is flattened with respect to the same coating without the dimerdiol (meth)acrylate.

New claims 19-21 are directed to a method for flattening a substrate surface comprising applying a self-curing and/or radiation-curing coating system to the surface and curing, wherein the coating system comprises a dimerdiol

(meth)acrylate having a degree of esterification of at least 50%, in an amount effect to flat the cured coating.

**Rejections under 35 U.S.C. § 103(a)**

Previously pending claims 6-8, 10-13 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mochizuki et al. (JP 10-218946, "Mochizuki"). Applicants respectfully traverse the rejection.

Mochizuki discloses heat- or energy-curable compositions containing (a) (meth)acrylate esters of dimerdiol alkoxyates of a specific formula, and (b) dimerdiol (meth)acrylates.

Mochizuki provides no indication of the **flattening** properties of either the alkoxyated or unalkoxyated (meth)acrylates of dimerdiol, but is instead drawn to hardenability (hardness) and water resistance properties. Further, Mochizuki's coating composition is not the same as that of applicants, including both alkoxyated (45% based on the composition in the example of the abstract) and unalkoxyated (only 5% based on the composition in the example of the abstract) dimerdiol (meth)acrylates. Based on the dimerdiol (meth)acrylate species present, the alkoxyated species constitutes the majority (90%) and the unalkoxyated species the minority (only 10%) of the monomers. Therefore, one skilled in the art would expect any flattening effect, **if it were indeed present**, on which point Mochizuki is silent, to arise from the **alkoxyated** dimerdiol (meth)acrylate. In this respect, Mochizuki actually teaches away from both applicants' composition as well as the expectation of a flattening effect. At a minimum, applicants submit that the statement of the Examiner that "[t]he flattening properties are inherent to the coating composition" (Office Action, page 2, number 3) is inaccurate in the present case since it is apparent that the compositions are distinct, and the unalkoxyated dimerdiol (meth)acrylate constitutes only a minor component of Mochizuki's total dimerdiol (meth)acrylates.

Previously pending claims 6-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Morea-Swift (WO 98/58030). Applicants respectfully traverse the rejection.

As acknowledged by the Examiner, Morea-Swift discloses DPGDA (dipropylene glycol diacrylate) as one possible component of a lacquer/paint base, but fails to disclose any dimerdiol (meth)acrylate component, as required by applicants. DPGDA is described as a matting monomer **in concert with a solid flattening** agent such as amorphous silica. There is no indication that DPGDA itself is effective as a flattening agent in the **absence** of an additional solid flattening agent (e.g. silica). Thus applicants' invention is distinguished over Morea-Swift in both the presence of the required dimerdiol (meth)acrylate, and the flattening activity in the absence of a solid flattening agent, which solid flattening agent is not required in applicants' invention in order to achieve the flattening effect.

Previously pending claims 6-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Thames et al. (US 6,001,913; "Thames"). Applicants respectfully traverse the rejection.

As acknowledged by the Examiner, Thames discloses Photomer 3016 (bisphenol-A-diglycidyl ether diacrylate) as one possible component of a lacquer/paint base, but fails to disclose any dimerdiol (meth)acrylate component, as required by applicants. Photomer 3016 is not disclosed as a matting/flattening monomer itself. Thus applicants' invention is distinguished over Thames in both the presence of the required dimerdiol (meth)acrylate, and the absence in Thames of any disclosed flattening activity. In the absence of any dimerdiol (meth)acrylate, there can be no inherent flattening activity, since Photomer 3016 itself is not a flattening agent.

Previously pending claims 6-8, 10-13 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gloster et al. (US 2004/0006157; "Gloster"). Applicants respectfully traverse the rejection.

Gloster discloses Photomer 4226 (dipropylene glycol diacrylate) as one possible component of a 100% solids UV-curable ink, but fails to disclose any dimerdiol (meth)acrylate component, as required by applicants. Photomer 4226 is not disclosed as a matting/flatting monomer itself. Thus applicants' invention is distinguished over Gloster in both the presence of the required dimerdiol (meth)acrylate, and the absence in Gloster of any disclosed flatting activity. In the absence of any dimerdiol (meth)acrylate, there can be no inherent flatting activity, since Photomer 4226 itself is not a flatting agent.

Previously pending claims 6-7, 11 and 13-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Narayan et al. (US 6,239,189; "Narayan"). Applicants respectfully traverse the rejection.

Narayan discloses Photomer 3016 (bisphenol-A-diglycidyl ether diacrylate) as one possible component of a radiation-curable ink, but fails to disclose any dimerdiol (meth)acrylate component, as required by applicants. Photomer 3016 is not described as a matting/flatting monomer itself. Thus applicants' invention is distinguished over Narayan in both the presence of the required dimerdiol (meth)acrylate, and the absence in Narayan of any disclosed flatting activity. In the absence of any dimerdiol (meth)acrylate, there can be no inherent flatting activity, since Photomer 3016 itself is not a flatting agent.

In toto, there is simply no disclosure of flatting activity for dimerdiol (meth)acrylates, with or without other components. Specifically, there is no disclosure relative to applicants' claims as presently amended, drawn to a process for producing a flattened coating, and drawn to a method for flatting a substrate surface. Applicants' processes and methods are therefore patentably unobvious over the cited art.

**Conclusion**

In summary, in view of the above claim amendments and remarks, applicants believe that all of the pending claims as amended are in condition for allowance. The Examiner is respectfully requested to reconsider, withdraw the rejections and allow the claims.

If any additional fees are required in support of this application, authorization is granted to charge our Deposit Account No. 50-1943.

Respectfully submitted,

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Date

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